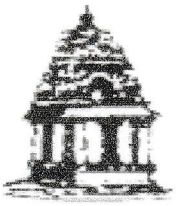

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

DIVISION: BYATARAYANAPURA

SUB DIVISION: VIDYARANYAPURA

*Name of Work: **Modified Estimate for Drilling of Bore well and providing Pipeline in Ward No.11 (Kuvempunagara), Vidyaranyapura Sub Division.***

Job Code: 011-20-000123

Estimated Cost:	***Rs. 35.00 Lakhs***
Approved Cost:	***Rs. 28.04 Lakhs***
Modified Cost:	***Rs. 28.03 Lakhs***

BRUHAT BANGALORE MAHANAGARA PALIKE

EAST ZONE

Name of the work: **Modified Estimate for Drilling of Bore well and Providing Pipeline in Ward No.11 (Kuvempunagara), Vidyaranyapura Sub Division.**

	011-20-000123	P-1802					Est Cost:	2803851.00
Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Gerophysical investigation of existing Ground Wate in the vicinity, its qualityf 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etc., as per Specification and direction **(P. 104, I. 13.04) PRED SR 2019-20**	Each BW							
			4				**4**	3428.88	**13716.00**
2	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) **P. 103 / I. 13.1 PRED SR 2019-20**	Rmtr							
	0 to 50 m		4	50.00			**200.00**	315.77	**63154.00**
3	50 to 100 m		4	50.00			**200.00**	402.22	**80444.00**
4	100 to 150 m		4	50.00			**200.00**	414.96	**82992.00**
5	150 to 200 m		4	50.00			**200.00**	487.76	**97552.00**
6	200 to 250 m		4	50.00			**200.00**	576.94	**115388.00**
7	250 to 300 m		4	50.00			**200.00**	637.00	**127400.00**
8	300 to 350 m		4	50.00			**200.00**	750.75	**150150.00**
9	Supply of ISI mark 175 mm nominal bore, Plain end steel casing pipe - grade of Steel Fee 410 of wall thickness 5.4mm thick confirming to IS 4270:2001 and latest amendments, electric resistance welded steel tube material and confirming to IS 1387/1993 and manufactured by baseic open hearth electric or basic oxygen process in random length of 5 to 7 mts both ends threaded confirming tio IS 554/1985, one end fixied with socket confirming to IS 4270:2001 and the other end with screwed pipes ISI Marking weighing 25.10Kg/mtr (Inclusive of all taxes and durties) Prices include Collar-medium duty **P. 43, I No. 1119 PRED SR 2019-20**	Rmtr							
	175 mm dia MS Pipe x 5.4mm thick		4	80.00			**320.00**	1255.80	**401856.00**
10	Providing 250mm dia PVC Pipe 6kg/cm **BWSSB SR 2014-15 Page No. 53, Item No. 1(ii)**	Rmtr							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
11	Providing and fixing Borewell Cap & Clamp Set **P. XLVI Sl No. 17 PWD SR 2018-19**	Set							
			4				**4**	1638.00	**6552.00**
12	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 12.50 HP 25 stage. ATALANTA< SUGNA< CRI, KIRLOSKAR and other Equivalent Pumps **PWD SR 2018-19 P. XLII Item No. 43 including of all taxes**	No							
	15 HP 30 Stage		3				**3**	57783.18	**173350.00**
13	GI Pipe 50 mm'B' class **Page No. XLVII Sl No. 1, PWD SR 2018-19**	m							
			3	350.00			**1050.00**	377.65	**396533.00**
14	Heavy Duty Collar 50 mm dia **Page No. XLVII, SL No. 2, PWD SR 2018-19**	Nos							
			3	59.00			**177**	163.80	**28993.00**
15	Providing non-return valve 50 mm **Page No. XLVII, Sl No. 16, PWD SR 2018-19**	Nos							
			3				**3**	1638.00	**4914.00**
16	Providing Gate Valve 50 mm **Page No. XLVII, Sl No. 15, PWD SR 2018-19**	Nos							
			3x18				**54**	1638.00	**88452.00**
17	Supplying and Fixing Out Door Panel up to 15 HP **(PWD SR 2018-19 Page No. XLVII Sl No. 12)**	No.							
			3				**3**	14105.00	**42315.00**
18	Submersible Cable 1x3x6.0 Sq.mm **(PWD SR 2018-19 Page No. XLVII Sl No. 8)**	M							
			3x2	320.00			**1920**	131.04	**251597.00**
19	Labour charges for erection as new /repaired submercible pumpset allong with GI pipe (32/50mm) cable (new submercible pumpset if required will be supplied by the department free of cost and released pumpset shoud be handed over to department including transportation (Each lenth =6.00) **Page No. 558, Items No-3 BWSSB SR for 2014-15)**	Per Length							
			3	54.00			**162**	80.08	**12973.00**
20	Supplying and fixing 20"x20"x2.5" polished wood board made of not less than 15mm thick plank on both sides of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws., **P No. 24 / I No. 5.6.6**								

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
			3				**3**	265.72	**797.00**
21	Supp ng of 1.1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded Inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975GROUP-A **P No. 40 / I No. 6.4.3 4 core 16 Sqmm KPWD Electrical SR 2019-20**	Mtr							
			3	35.00			**105.00**	136.50	**14333.00**
22	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required. **P No. 41 / I No. 6.5.1 (6Sqmm to 16 Sqmm) KPWD Electrical SR 2019-20**	Mtr							
			3	35.00			**105.00**	10.81	**1135.00**
23	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7) **P No. 41 / I. No. 6.6.1 KPWD Electrical SR 2019-20**	Mtr							
	For Cutting Road Surface		3	30.00			**90.00**	69.16	**6224.00**
24	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV. **P. No. 41 / I No. 6.9.1 KPWD Electrical SR 2019-20**	Mtr							
	40mm dia GI pipe		3	4.00			**12.00**	304.85	**3658.00**
25	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc. **P. No. 42 / I.No. 7.10.2 KPWD Electrical SR 2019-20**	No.							
	16Sqmm		3				**3.00**	245.70	**737.00**
26	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 12 mm dia, **(P No. 40, I No. 6.1) KPWD Electrical SR 2019-20**	No							
			3				**3**	2729.73	**8189.00**
27	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers.**P No. 24 / I No. 5.7.2 KPWD Electrical SR 2019-20**	No.							
	32 Amps		3x6				**18**	158.34	**2850.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
28	Supplying and fixing miniature circuit breakers on exist MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898. **6-32Amps TPN P No. 27 / I No.5.17.7 KPWD SR 2019-20**	No							
			3				**3**	1560.65	**4682.00**
29	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete **P.No. 30, I. No. 5.42.2 KPWD Electrical SR 2019-20**	Sq.Cm							
	16SWG		3x2	120.00	60.00		43200.00		
			3	360.00	25.00		27000.00		
							70200.00	0.32	**22464.00**
30	Earthwork excavation for pipeline trenches including deporiting or bank up to a lead of 50 mtrs including shiriry and statting danger lighting and using site rails and boming poles at every 100 mtrs wherever necessary as directed in th following strata by Manual Means . **Page No. 07 / Item No.2.22.1 / PRED SR 2019-20 Ordinary Soil**	Cum							
			1	270.00	0.60	0.60	97.20		
			1	260.00	0.60	0.60	93.60		
							190.80		
							121.50	238.42	**28968.00**
							69.30	194.22	**13459.00**
	Charges Basic Rate	194.00							
	Area Weightage @ 10%	19.40							
	Total	**213.40**							
	Tender Premium @ -8.99%	-19.18							
	Total Amount	**194.22**							
31	Providing and instalation at site of works P.V.C.Pipes including cost of pipes and specials and incluidng lowring into trenches, laying true to line, level and perfect linking at joints, leak proof including jointing encasing the pipe alround to a depth Not less than 15cm with grave or selected earth avalabile from the execavation Etc., **Page No.61 item No. 10.01.2 b PRED SR 2019-20.**	Rmtr							
	75 mm dia 6 KSC PVC pipe		1	270.00			270.00		
			1	260.00			260.00		
							530.00		
							337.50	188.37	**63575.00**
							192.50	191.12	**36791.00**
	Charges Basic Rate	210.00							
	Tender Premium @ -8.99%	-18.88							
	Total Amount	**191.12**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
32	KSRRB M2100 Filling the foundations KSRRB 2100 Filling the foundations trenches using approved sand as per drawing and technical specifications in 250mm layers, wherever necessary watering and ramming, including cost of all materials, labour complete as per specifications. MORTH Chapter 12 **Item No. 27.14 Page No. 221, PWD SR 2018-19**	cum							
			1	270.00	0.60	0.20	32.40		
			1	260.00	0.60	0.20	31.20		
							63.60		
							40.05	2931.42	**117403.00**
	Charges Basic Rate	2177.00					**23.55**	2179.42	**51325.00**
	Area Weightage @ 10%	217.70							
	Total	**2394.70**							
	Tender Premium @ -8.99%	-215.28							
	Total Amount	**2179.42**							
33	Refilling the basement and pipeline treanches with secleted available earthe for trench excavation including watering, consolidation in layers of 15 cm thick including disposing of the sunplus earth with a lead of 200 mtrs **Page No. 8 / Item No. 2.25 / PRED SR 2019-20**	Cum							
			Qty. Vide Item No. 25-27				**101.76**		
							81.45	93.73	**7634.00**
							20.31	93.74	**1904.00**
	Baisc Rate	103.00							
	Tender Premium @ -8.99%	-9.26							
	Total Amount	**93.74**							
	EIRL								
E1	Earth work Excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. **(PWD SR 2021-22 Vol -I Pg No 5 item no 1.4.1)**	Cum							
			1	2.20	2.20	1.50	7.26		
							7.26	282.75	**2053.00**
	Basic Rate	186.00							
	Area Weightage @ 10%	18.60							
	Sub Total	204.60							
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
	Total	**310.68**							
	Tender Premium @ -8.99%	-27.93							
	Total Amount	**282.75**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
E2	Providing and laying in position Plain Cement Conc e Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. **(PWD SR 2021-22 Vol -I Pg 15 item no 2.1.3)**	cum							
			1	2.20	2.20	0.15	0.73		
							0.73	5560.16	**4037.00**
	Basic Rate	5554.00							
	Area Weightage @ 10%	555.40							
	Total	**6109.40**							
	Tender Premium @ -8.99%	-549.24							
		5560.16							
E3	Providing Size Stone masonry with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand) **Item No. 5.4, Page No. 9, Vol - II PWD SR 2021-22**	cum							
			2	2.20	0.45	1.00	1.98		
			2	1.20	0.45	1.00	1.08		
							3.06	5428.02	**16610.00**
	Basic Rate	5422.00							
	Area Weightage @ 10%	542.20							
	Total	**5964.20**							
	Tender Premium @ -8.99%	-536.18							
		5428.02							
E4	Providing ruled pointing to cursed stone masonry with lime mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost all materials, labour, usage charges of machinery, curing complete as pre specification. **Item No. 21.10 Page No. 190, Vol - II PWD SR 2021-22**	sqm							
			2	1.20		1.00	2.40		
			2	1.20		1.00	2.40		
							4.80	238.26	**1144.00**
	Basic Rate	238.00							
	Area Weightage @ 10%	23.80							
	Total	**261.80**							
	Tender Premium @ -8.99%	-23.54							
		238.26							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
E5	Providing and laying in position plain cement conc[illegible] for levelling course for all works in foundation. The granite / trap / basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately Mix 1:3:6 (M10) Using 20 mm nominal size graded crushed coarse aggregate **(PWD SR 2021-22 Vol -I Pg 15 item no 2.1.4))**	cum							
	Culvert Coping		2	2.20	0.45	0.10	0.20		
			2	1.20	0.45	0.10	0.11		
			1	1.20	1.20	0.10	0.14		
							0.45	5734.36	**2580.00**
	Basic Rate	5728.00							
	Area Weightage @ 10%	572.80							
	Total	**6300.80**							
	Tender Premium @ -8.99%	-566.44							
		5734.36							
E6	Providing **precast slab of 230mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge - Data rate	Sqm							
	Covering Slab		1	2.20	2.20		4.84		
							4.84	4584.17	**22187.00**
	Basic Rate	5037.00							
	Tender Premium @ -8.99%	-452.83							
		4584.17							
									2645142.00
	Additional GST @ 6%								**158709.00**
	Total								**2803851.00**
Rupees Twenty Eight Lakh(s) Three Thousand Eight Hundred Fifty One Only									

Technical Sanction
Accorded For RS2803851/-
Head of A/C 1802
CER NO : 92 Dt. 15-03-23

Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division